AMENDMENTS TO THE CLAIMS

1-21. (Canceled)

22.   (Previously Presented) An operation history utilization system which utilizes a user's operation history on a plurality of devices, and provides the user with a service, the system comprising:

a plurality of devices that transmit operation data that describes a user's operation details on said plurality of devices; and

a service provision apparatus that (i) accumulates the operation data transmitted from said plurality of devices as operation history data in chronological order, (ii) specifies a frequent operation pattern which is a sequence of frequent operation history patterns based on the accumulated operation history data and (iii) provides a service according to the user's behavior predicted from the specified frequent operation pattern included in the accumulated operation history data,

wherein said service provision apparatus includes:

an operation history reception unit that receives the operation history data transmitted from said plurality of devices;

an operation history database unit that accumulates the received operation history data;

a pattern extraction unit that extracts the frequent operation pattern from the operation history data accumulated in said operation history database unit;

a pattern database unit that stores the extracted frequent operation pattern, the frequent operation pattern including operation history data that is classified into a group and accumulated for the plurality of devices during a predetermined time interval;

a pattern monitor unit that monitors whether or not a sequence of operation history data newly received by said operation history reception unit corresponds to the frequent operation pattern stored in said pattern database unit;

a service provision unit that provides the service according to the user's behavior predicted from a result of the monitoring performed by said pattern monitor unit; and

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a function database unit that stores a predetermined relationship between operations performed by said plurality of devices and a function provided to the user in response to the operations,

wherein said pattern extraction unit compares the operation history data accumulated in said operation history database unit with a predetermined relationship in said function database unit, converts the operation history data into a sequence of functions, extracts a frequent function pattern from the sequence of functions, and stores the extracted frequent function pattern into said pattern database unit,

said service provision unit provides the service relating to said plurality of devices according to the user's behavior predicted from the result of monitoring performed by said pattern monitoring unit, and

the function provided to the user is a main function associated with a names of said plurality of devices.

23.   **(Previously Presented)** The operation history utilization system according to Claim 22, wherein said service provision apparatus includes:

a user server apparatus which (i) accumulates the operation history data, (ii) specifies the frequent operation pattern based on the accumulated operation history data and (iii) predicts the user's behavior from the specified frequent operation pattern; and

an application server apparatus which provides service according to the user's behavior predicted by said user server apparatus.

24.   **(Previously Presented)** The operation history utilization system according to Claim 22, wherein said service provision apparatus includes:

a user server apparatus which accumulates the operation history data; and

an application server apparatus which (i) specifies the frequent operation pattern based on the operation history data accumulated in said user server apparatus, (ii) predicts the user's

behavior from the specified frequent operation pattern and (iii) provides service according to the predicted user's behavior.

25. **(Previously Presented)** The operation history utilization system according to Claim 22, wherein each of said plurality of devices includes:

an operation history storage unit that stores operation history data in which a date and a time of an operation are stored in association with details regarding a performed operation performed; and

an operation history transmission unit that transmits operation history data to said service provision apparatus at a predetermined timing, the operation history data being stored in said operation history storage unit.

26. **(Previously Presented)** The operation history utilization system according to Claim 25, wherein each of said plurality of devices further includes a viewing history storage unit that stores viewing history data related to content viewed by the user, and

said operation history transmission unit transmits , to said service provision apparatus, the viewing history data stored in said viewing history storage unit together with the operation history data.

27. **(Previously Presented)** The operation history utilization system according to Claim 25, wherein each of said plurality of devices further includes a user identification unit that identifies the user who performed the operation, and

said operation history storage unit stores a result identified by said user identification unit as a part of the operation history.

28. **(Previously Presented)** The operation history utilization system according to Claim 25,

wherein each of said plurality of devices stores information as a part of an operation history into said operation history storage unit, the information describing a communication partner.

29-30. **(Canceled)**

31. **(Previously Presented)** The operation history utilization system according to Claim 22, wherein said service provision apparatus includes:

a viewing history reception unit that receives viewing history data transmitted together with the operation history data from said plurality of devices; and

a viewing history database unit that accumulates the received viewing history data, and

said pattern extraction unit extracts a frequent pattern from both of the operation history data accumulated in said operation history database unit and the viewing history data accumulated in said viewing history database unit.

32. **(Previously Presented)** The operation history utilization system according to Claim 22, wherein said pattern extraction unit utilizes information regarding the user operating said plurality of devices so as to extract the frequent operation pattern, the information being transmitted from said plurality of devices.

33. **(Previously Presented)** The operation history utilization system according to Claim 22, wherein said pattern extraction unit utilizes information regarding a communication partner so as to extract the frequent operation pattern, the information being transmitted from said plurality of devices .

34. **(Previously Presented)** The operation history utilization system according to Claim 22, wherein said plurality of devices transmits respective operation data describing the details of the user's operation, and

said service provision apparatus (i) accumulates operation data transmitted from the plurality of devices as operation history data in chronological order, (ii)   specifies a frequent operation pattern based on the accumulated operation history data and (iii)   provides a service according to the user's behavior predicted from the specified frequent operation pattern.

35.   **(Previously Presented)** The operation history utilization system according to Claim 22, wherein said serviced provision apparatus provides the service by automatically controlling said plurality of devices according to the frequent operation pattern.

36.   **(Previously Presented)** An operation history utilization method for utilizing a user's operation history and providing the user with service, the method comprising steps of:

transmitting operation data that describes details regarding the user's operation details on a plurality of devices , said transmitting being performed by the plurality of devices;

accumulating the operation data transmitted from the plurality of devices as operation history data in chronological order;

specifying a frequent operation pattern which is a sequence of frequent operation history patterns based on the accumulated operation history data; and

providing service according to the user's behavior predicted from the specified frequent operation pattern included in the accumulated operation history data;

receiving operation history data transmitted from the plurality of devices;

accumulating the operation history data received from the plurality of devices in an operation history database unit;

extracting the frequent operation pattern from the operation history data accumulated in the operation history database unit using a pattern extracting unit;

storing the extracted frequent operation pattern in a pattern database unit, the frequent operation pattern including operation history data that is classified into a group and accumulated from the plurality of devices during a predetermined time interval;

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monitoring whether or not a sequence of newly received operation history data from said plurality of devices corresponds with the frequent operation stored in said pattern database unit;

providing the service according to the user's behavior predicted from a result of the performed monitoring; and

storing in a function database unit a predetermined relationship between operations performed by the plurality of devices and a function provided to the user in response to the operations,

wherein the pattern extraction unit compares the operation history data accumulated in the operation history database unit with a predetermined relationship in the function database unit, converts the operation history data into a sequence of functions, extracts a frequent function pattern from the sequence of functions, and stores the extracted frequent function pattern into said pattern database unit,

providing the service relating to said plurality of devices according to the user's behavior predicted from the result of monitoring performed and

the function provided to the user is a main function associated with names of said plurality of devices .

37.   **(Previously Presented)** The operation history utilization method according to Claim 36, the method comprising:

storing operation history data in which a date and a time of an operation in association with details of a type of operation; and

transmitting the stored operation history data from said plurality of devices at a predetermined timing.

38-39. **(Canceled)**

40.   **(Currently Amended)** A service provision apparatus which provides a user with service by utilizing the user operation history on a plurality of devices, the apparatus comprising:

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at least one hardware processor and a memory device, the memory device storing a program that causes the service provision apparatus to operate as:

a reception unit that receives operation data describing the user's operation details transmitted from the plurality of devices; and

a service provision unit that accumulates the received operation data as operation history data in chronological order, to specify a frequent operation pattern which is a sequence of frequent operation patterns based on the accumulated operation history data, and to provide service according to the user's behavior predicted from the specified frequent operation pattern,

wherein the program also causes said service provision apparatus to operate as~~includes~~:

an operation history reception unit that receives the operation history data transmitted from said plurality of devices;

an operation history database unit that accumulates the received operation history data;

a pattern extraction unit that extracts the frequent operation pattern from the operation history data accumulated in said operation history database unit;

a pattern database unit that stores the extracted frequent operation pattern, the frequent operation pattern including operation history data that is classified into a group and accumulated for the plurality of devices during a predetermined time interval;

a pattern monitor unit that monitors whether or not a sequence of operation history data newly received by said operation history reception unit corresponds to the frequent operation pattern stored in said pattern database unit;

a service provision unit that provides the service according to the user's behavior predicted from a result of the monitoring performed by said pattern monitor unit; and

a function database unit that stores a predetermined relationship between operations performed by said plurality of devices and a function provided to the user in response to the operations,

wherein said pattern extraction unit is compares the operation history data accumulated in said operation history database unit with a predetermined relationship in said function database unit, convert the operation history data into a sequence of functions, extracts a frequent function pattern from the sequence of functions, and stores the extracted frequent function pattern into said pattern database unit,

said service provision unit provides the service relating to said plurality of devices according to the user's behavior predicted from the result of monitoring performed by said pattern monitoring unit, and

the function provided to the user is a main function associated with names of said plurality of devices .

41.   **(Canceled)**

42.   **(Currently Amended)** A program stored on a computer-readable <u>storage</u> medium for a service provision apparatus which provides a user with service by utilizing the user's operation history on a plurality of devices, the program causing a computer to execute steps of:

receiving operation data describing the user's operation transmitted from said plurality of devices; and

accumulating the received operation data as operation history data in chronological order, specifying a frequent operation pattern which is a sequence of frequent operation history data based on the accumulated operation history data, and providing service according to the user's behavior predicted from the specified frequent operation pattern;

receiving operation history data transmitted from the plurality of devices;

accumulating the operation history data received from the plurality of devices in an operation history database unit;

extracting the frequent operation pattern from the operation history data accumulated in the operation history database unit using a pattern extracting unit;

storing the extracted frequent operation pattern in a pattern database unit, the frequent operation pattern including operation history data that is classified into a group and accumulated from the plurality of devices during a predetermined time interval;

monitoring whether or not a sequence of newly received operation history data from said plurality of devices corresponds with the frequent operation stored in said pattern database unit; and

providing the service according to the user's behavior predicted from a result of the performed monitoring; and

storing in a function database unit a predetermined relationship between operations performed by the plurality of devices and a function provided to the user in response to the operations,

wherein the pattern extraction unit compares the operation history data accumulated in the operation history database unit with a predetermined relationship in the function database unit, converts the operation history data into a sequence of functions, extracts a frequent function pattern from the sequence of functions, and stores the extracted frequent function pattern into said pattern database unit,

providing the service relating to said plurality of devices according to the user's behavior predicted from the result of monitoring performed, and

the function provided to the user is a main function associated with names of said plurality of devices.

43. **(Previously Presented)**   The operation history utilization system according to Claim 22, wherein the function is a generic concept of a specific one of the operations, and is an operation independent of a device type of each of said plurality of devices.